

TABLE OF CONTENTS

I. LEGAL PRINCIPLES 3

II. LEVEL OF ORDINARY SKILL IN THE ART 8

III. BACKGROUND 9

IV. CONSTRUCTION OF AGREED TERMS FOR THE ASSERTED PATENTS..... 11

V. CONSTRUCTION OF DISPUTED TERMS FOR THE ASSERTED PATENTS..... 11

 A. “axially extending” 11

 B. “a radially inwardly extending first annular surface adjacent the opening, wherein the radially inwardly extending first annular surface has a portion facing in a first direction” 14

 C. “first direction” / “second direction” 18

 D. “generally radially” / “generally axially” 24

 E. The '206 Patent L-Shaped Terms 29

VI. CONCLUSION..... 34

I. LEGAL PRINCIPLES

A. Claim Construction

“It is a ‘bedrock principle’ of patent law that ‘the claims of a patent define the invention to which the patentee is entitled the right to exclude.’” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (quoting *Innova/Pure Water Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). To determine the meaning of the claims, courts start by considering the intrinsic evidence. *Id.* at 1313; *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 861 (Fed. Cir. 2004); *Bell Atl. Network Servs., Inc. v. Covad Commc’ns Grp., Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001). The intrinsic evidence includes the claims themselves, the specification, and the prosecution history. *Phillips*, 415 F.3d at 1314; *C.R. Bard, Inc.*, 388 F.3d at 861. The general rule—subject to certain specific exceptions discussed *infra*—is that each claim term is construed according to its ordinary and accustomed meaning as understood by one of ordinary skill in the art at the time of the invention in the context of the patent. *Phillips*, 415 F.3d at 1312–13; *Alloc, Inc. v. Int’l Trade Comm’n*, 342 F.3d 1361, 1368 (Fed. Cir. 2003); *Azure Networks, LLC v. CSR PLC*, 771 F.3d 1336, 1347 (Fed. Cir. 2014) (quotation marks omitted) (“There is a heavy presumption that claim terms carry their accustomed meaning in the relevant community at the relevant time.”) *cert. granted, judgment vacated*, 135 S. Ct. 1846 (2015).

“The claim construction inquiry . . . begins and ends in all cases with the actual words of the claim.” *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1248 (Fed. Cir. 1998). “[I]n all aspects of claim construction, ‘the name of the game is the claim.’” *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1298 (Fed. Cir. 2014) (quoting *In re Hiniker Co.*, 150 F.3d 1362, 1369 (Fed. Cir. 1998)) *overruled on other grounds by Williamson v. Citrix Online, LLC*, 792 F.3d 1339 (Fed. Cir. 2015). First, a term’s context in the asserted claim can be instructive. *Phillips*, 415 F.3d at

1314. Other asserted or unasserted claims can also aid in determining the claim’s meaning, because claim terms are typically used consistently throughout the patent. *Id.* Differences among the claim terms can also assist in understanding a term’s meaning. *Id.* For example, when a dependent claim adds a limitation to an independent claim, it is presumed that the independent claim does not include the limitation. *Id.* at 1314–15.

“[C]laims ‘must be read in view of the specification, of which they are a part.’” *Id.* (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc)). “[T]he specification ‘is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.’” *Id.* (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)); *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002). This is true because a patentee may define his own terms, give a claim term a different meaning than the term would otherwise possess, or disclaim or disavow the claim scope. *Phillips*, 415 F.3d at 1316. In these situations, the inventor’s lexicography governs. *Id.*

The specification may also resolve ambiguous claim terms “where the ordinary and accustomed meaning of the words used in the claims lack sufficient clarity to permit the scope of the claim to be ascertained from the words alone.” *Teleflex, Inc.*, 299 F.3d at 1325. But, “[a]lthough the specification may aid the court in interpreting the meaning of disputed claim language, particular embodiments and examples appearing in the specification will not generally be read into the claims.” *Comark Commc’ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998) (quoting *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988)); *see also Phillips*, 415 F.3d at 1323. “[I]t is improper to read limitations from a preferred embodiment described in the specification—even if it is the only embodiment—into the claims

absent a clear indication in the intrinsic record that the patentee intended the claims to be so limited.” *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 913 (Fed. Cir. 2004).

The prosecution history is another tool to supply the proper context for claim construction because, like the specification, the prosecution history provides evidence of how the U.S. Patent and Trademark Office (“PTO”) and the inventor understood the patent. *Phillips*, 415 F.3d at 1317. However, “because the prosecution history represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and thus is less useful for claim construction purposes.” *Id.* at 1318; *see also Athletic Alts., Inc. v. Prince Mfg.*, 73 F.3d 1573, 1580 (Fed. Cir. 1996) (ambiguous prosecution history may be “unhelpful as an interpretive resource”).

Although extrinsic evidence can also be useful, it is “less significant than the intrinsic record in determining the legally operative meaning of claim language.” *Phillips*, 415 F.3d at 1317 (quoting *C.R. Bard, Inc.*, 388 F.3d at 862). Technical dictionaries and treatises may help a court understand the underlying technology and the manner in which one skilled in the art might use claim terms, but technical dictionaries and treatises may provide definitions that are too broad or may not be indicative of how the term is used in the patent. *Id.* at 1318. Similarly, expert testimony may aid a court in understanding the underlying technology and determining the particular meaning of a term in the pertinent field, but an expert’s conclusory, unsupported assertions as to a term’s definition are not helpful to a court. *Id.* Extrinsic evidence is “less reliable than the patent and its prosecution history in determining how to read claim terms.” *Id.* The Supreme Court has explained the role of extrinsic evidence in claim construction:

In some cases, however, the district court will need to look beyond the patent’s intrinsic evidence and to consult extrinsic evidence in order to understand, for example, the background science or the meaning of a term in the relevant art during the relevant time period. *See, e.g., Seymour v. Osborne*, 11 Wall. 516, 546 (1871)

(a patent may be “so interspersed with technical terms and terms of art that the testimony of scientific witnesses is indispensable to a correct understanding of its meaning”). In cases where those subsidiary facts are in dispute, courts will need to make subsidiary factual findings about that extrinsic evidence. These are the “evidentiary underpinnings” of claim construction that we discussed in *Markman*, and this subsidiary factfinding must be reviewed for clear error on appeal.

Teva Pharm. USA, Inc. v. Sandoz, Inc., 574 U.S. 318, 331–32 (2015).

B. Departing from the Ordinary Meaning of a Claim Term

There are “only two exceptions to [the] general rule” that claim terms are construed according to their plain and ordinary meaning: “1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of the claim term either in the specification or during prosecution.”² *Golden Bridge Tech., Inc. v. Apple Inc.*, 758 F.3d 1362, 1365 (Fed. Cir. 2014) (quoting *Thorner v. Sony Comput. Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012)); see also *GE Lighting Sols., LLC v. AgiLight, Inc.*, 750 F.3d 1304, 1309 (Fed. Cir. 2014) (“[T]he specification and prosecution history only compel departure from the plain meaning in two instances: lexicography and disavowal.”). The standards for finding lexicography or disavowal are “exacting.” *GE Lighting Sols.*, 750 F.3d at 1309.

To act as his own lexicographer, the patentee must “clearly set forth a definition of the disputed claim term,” and “clearly express an intent to define the term.” *Id.* (quoting *Thorner*, 669 F.3d at 1365); see also *Renishaw*, 158 F.3d at 1249. The patentee’s lexicography must appear “with reasonable clarity, deliberateness, and precision.” *Renishaw*, 158 F.3d at 1249.

² Some cases have characterized other principles of claim construction as “exceptions” to the general rule, such as the statutory requirement that a means-plus-function term is construed to cover the corresponding structure disclosed in the specification. See, e.g., *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1367 (Fed. Cir. 2002).

To disavow or disclaim the full scope of a claim term, the patentee's statements in the specification or prosecution history must amount to a "clear and unmistakable" surrender. *Cordis Corp. v. Bos. Sci. Corp.*, 561 F.3d 1319, 1329 (Fed. Cir. 2009); *see also Thorner*, 669 F.3d at 1366 ("The patentee may demonstrate intent to deviate from the ordinary and accustomed meaning of a claim term by including in the specification expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope."). "Where an applicant's statements are amenable to multiple reasonable interpretations, they cannot be deemed clear and unmistakable." *3M Innovative Props. Co. v. Tredegar Corp.*, 725 F.3d 1315, 1326 (Fed. Cir. 2013).

C. Definiteness Under 35 U.S.C. § 112, ¶ 2 (pre-AIA) / § 112(b) (AIA)

Patent claims must particularly point out and distinctly claim the subject matter regarded as the invention. 35 U.S.C. § 112, ¶ 2. A claim, when viewed in light of the intrinsic evidence, must "inform those skilled in the art about the scope of the invention with reasonable certainty." *Nautilus Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 910 (2014). If it does not, the claim fails § 112, ¶ 2 and is therefore invalid as indefinite. *Id.* at 901. Whether a claim is indefinite is determined from the perspective of one of ordinary skill in the art as of the time the application for the patent was filed. *Id.* at 911. As it is a challenge to the validity of a patent, the failure of any claim in suit to comply with § 112 must be shown by clear and convincing evidence. *BASF Corp. v. Johnson Matthey Inc.*, 875 F.3d 1360, 1365 (Fed. Cir. 2017). "[I]ndefiniteness is a question of law and in effect part of claim construction." *ePlus, Inc. v. Lawson Software, Inc.*, 700 F.3d 509, 517 (Fed. Cir. 2012).

When a term of degree is used in a claim, "the court must determine whether the patent provides some standard for measuring that degree." *Biosig Instruments, Inc. v. Nautilus, Inc.*, 783 F.3d 1374, 1378 (Fed. Cir. 2015) (quotation marks omitted). Likewise, when a subjective term is

used in a claim, “a court must determine whether the patent’s specification supplies some standard for measuring the scope of the [term].” *Ernie Ball, Inc. v. Earvana, LLC*, 502 F. App’x 971, 980 (Fed. Cir. 2013) (citations omitted). The standard “must provide objective boundaries for those of skill in the art.” *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1371 (Fed. Cir. 2014).

II. LEVEL OF ORDINARY SKILL IN THE ART

It is well established that patents are interpreted from the perspective of one of ordinary skill in the art (“POSITA”). *See Phillips*, 415 F.3d at 1313 (“[T]he ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.”). The Federal Circuit has advised that the “[f]actors that may be considered in determining the level of skill in the art include: (1) the educational level of the inventors; (2) the type of problems encountered in the art; (3) prior art solutions to those problems; (4) the rapidity with which innovations are made; (5) sophistication of the technology; and (6) education level of active workers in the field.” *Env’tl Designs, Ltd. v. Union Oil Co. of California*, 713 F.2d 693, 696 (Fed. Cir. 1983). “These factors are not exhaustive but are merely a guide to determining the level of ordinary skill in the art.” *Daiichi Sankyo Co. Ltd. v. Apotex, Inc.*, 501 F.3d 1254, 1256 (Fed. Cir. 2007).

UTEX’s expert, Dr. Steven MacLean, opines that a POSITA for the Asserted Patents “would typically have a Bachelor’s Degree in Mechanical Engineering or Materials Science, or a similar technology degree, or at least five years of experience related to the design, performance, and materials of construction associated with downhole tools for High Temperature High Pressure applications, including header rings and other seals for positive displacement pumps, with the understanding that the number of years of experience could be higher or lower given the level of

education and advanced degrees.” Dkt. No. 35-1 at ¶ 24.

GD Energy’s expert, Mr. John Hayes, opines that a POSITA for the Asserted Patents “would be someone who had a bachelor’s degree in engineering or a similar discipline, or at least five years of experience in the design or implementation of high-pressure hydraulic seals, with an understanding that additional education may compensate for less experience, and vice-versa.” Dkt. No. 26-7 at ¶ 36.

Having considered the parties’ proposals, and the factors that may be considered in determining the level of skill in the art, the Court finds that a POSITA would have a bachelor’s degree in engineering or a similar discipline, or at least five years of experience in the design or implementation of high-pressure hydraulic seals, with an understanding that additional education may compensate for less experience, and vice-versa. The Court also finds that any differences in the parties’ proposals do not appear to be significant for the purpose of claim construction.

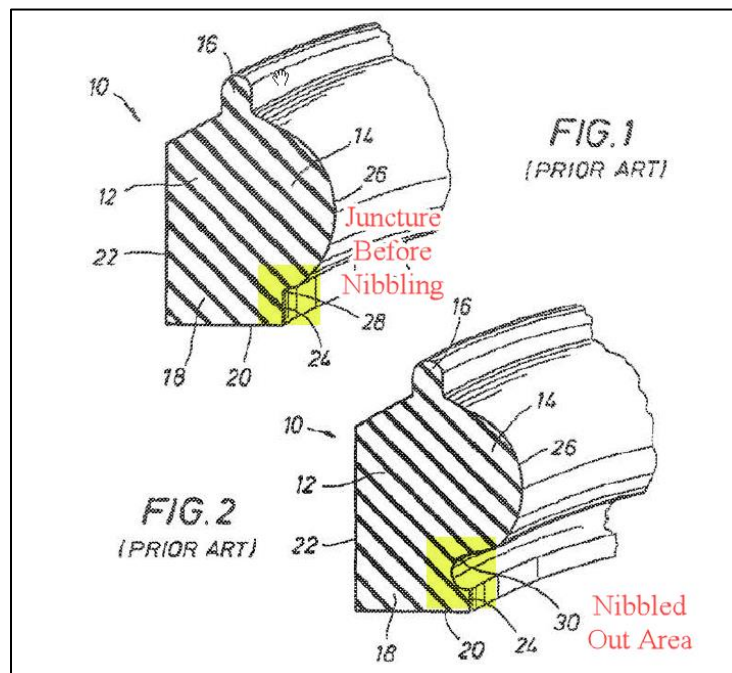
III. BACKGROUND

UTEX asserts that GD Energy infringes claims of U.S. Patent Nos. 10,428,949 (the “’949 Patent”) and 11,300,206 (the “’206 Patent”) (collectively, the “Asserted Patents”). The Asserted Patents are titled “Packing Assembly for a Pump,” share a common priority application (U.S. Provisional App. No. 61/018,538), contain identical specifications, and share the same inventors, Mr. John A. Miller and Mr. Robert H. Ash, Jr. The ’949 Patent was filed on December 6, 2016, and issued on October 1, 2019. The ’206 Patent was filed on June 18, 2019, and issued on April 12, 2022.

The Asserted Patents relate to a packing or seal assembly for a pump, and more particularly to a header ring for use in these assemblies. ’949 Patent at 1:21–23. These assemblies are commonly used in applications that “employ solids laden drilling fluids, e.g., muds, cement slurries, fracturing slurries, acids and the like, which frequently must be pumped under high

pressure into the well.” *Id.* at 1:32–36. Therefore, it is well known that this environment poses “difficult sealing problems at the high pressure end where the abrasive fluid must be prevented from leaking between the reciprocating plunger and the cylinder or housing within which it reciprocates.” *Id.* at 1:41–46. Sealing or packing systems for positive displacement pumps typically include “one or more . . . packing rings with various male and female adaptor rings at the forward and rearward ends of the packing assembly,” as well as a “header ring.” *Id.* at 1:47–57, 3:62–4:20, Fig. 8. The “header ring . . . forms a wiper ring at the high pressure end of the sealing assembly” and its “primary function [is] to prevent abrasives/solids from entering the region where the seal [or packing] rings . . . are positioned and thereby prevent excessive wear on [the] seal rings.” *Id.* at 4:6–11.

The Asserted Patents state that prior art header rings were susceptible to “a phenomena [sic] known as ‘nibbling.’” *Id.* at 1:63–65. Nibbling is a process by which pieces of the header ring are worn away or detach from the header ring as a result of the abrasive solids in the drilling fluid. *See id.* at 1:65–2:5, Fig. 2.



'949 Patent at Figs. 1 and 2 (annotated). Such damage reduced the effectiveness of the header ring and the entire set of seals. The Asserted Patents are directed to a header ring that utilizes layers of fabric reinforced elastomeric material on various surfaces of the header ring as reinforcement to prevent nibbling. *See id.* at 5:1–3 (describing fabric-reinforced “anti-nibbling section”).

IV. CONSTRUCTION OF AGREED TERMS FOR THE ASSERTED PATENTS

During the claim construction hearing, the parties agreed to the construction of the following terms:

| Claim Term/Phrase | Agreed Construction |
|--|---|
| “radially extending” '949 Patent, Claim 3 '206 Patent, Claims 1, 4 | “radially extending” means “extending towards or away from a center of the header ring” |

V. CONSTRUCTION OF DISPUTED TERMS FOR THE ASSERTED PATENTS

The parties’ dispute the meaning and scope of eight terms or phrases in the Asserted Patents. Each dispute is addressed below.

A. “axially extending”

| Disputed Term | UTEX’s Proposal | GD Energy’s Proposal |
|---------------------|--|---|
| “axially extending” | <p><u>Original Proposal</u> Plain and ordinary meaning.</p> <p><u>Alternative Proposal</u> “extending in the direction defined by the axis of the header ring”</p> | <p><u>Original Proposal</u> “extending in the direction of the axis, which is parallel to the axially reciprocating, cylindrical member”</p> <p><u>Alternative Proposal</u> “extending along the axis of the header ring”</p> |

1. Analysis

The term appears in Asserted Claim 3 of the '949 Patent, and Asserted Claims 1 and 4 of

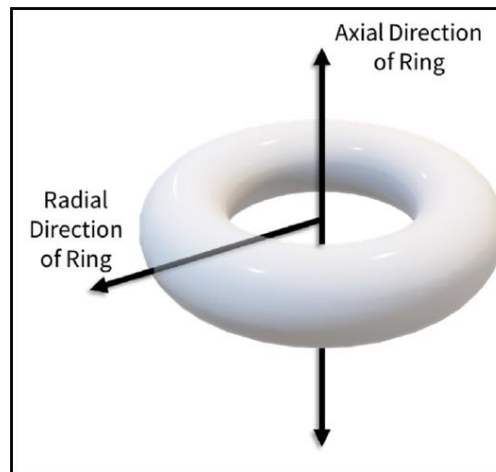
the '206 Patent. The Court finds that the term is used consistently in the claims and is intended to have the same general meaning in each claim. The Court first notes that there are numerous directional terms at issue in the asserted claims, and finds that a construction would be helpful and warranted in this instance.³ Specifically, it would be helpful to provide an “axis” for “axially extending,” and a “radius” for “radially extending” by including “the header ring” in the construction. GD Energy’s original proposal attempted to relate the terms to a “reciprocating cylindrical member,” rather than to the header ring itself. Dkt. No. 26 at 8. UTEX persuasively argued that GD Energy’s original proposal was “fundamentally flawed as they improperly define ‘radially extending’ and ‘axially extending’ in relation to the ‘reciprocating cylindrical member’ rather than the ring itself.” Dkt. No. 35 at 9.

In its reply brief, GD Energy provides an alternative construction and argues that UTEX stated that “the axial direction is along the axis of the header ring.” Dkt. No. 37 at 5 (citing Dkt. No. 35 at 9). UTEX replied that the language quoted by GD Energy from its brief relates to the phrases “radial *direction*” and the “axial *direction*,” which are not the terms proposed for construction. Dkt. No. 42 at 5 (emphasis in original). UTEX argues that the term should be given its plain and ordinary meaning, because the terms will be easily understood by the jury in the context of the intrinsic evidence and the simple geometric concepts invoked by the terms. *Id.* at 5. In the alternative, UTEX proposes construing the term “axially extending” to mean “extending in the direction defined by the axis of the header ring.”

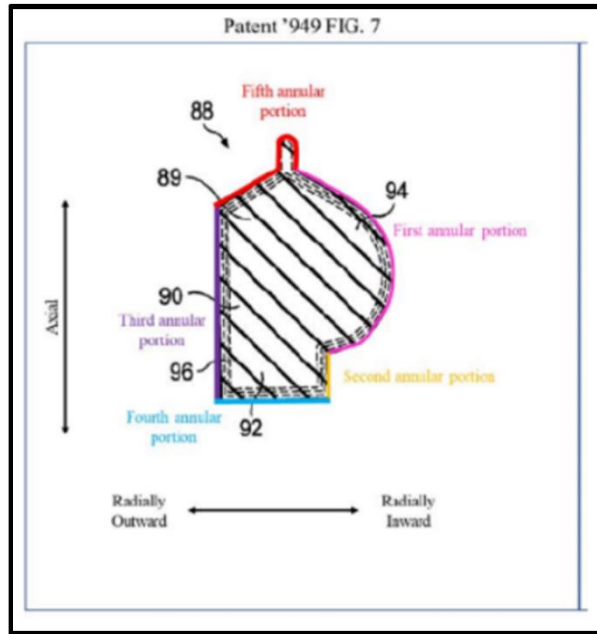
The Court first notes that all of the Asserted Claims recite a “header ring” in the preamble.

³ As indicated above, the parties agreed to the construction provided by the Court for the related term “radially extending”

The Asserted Claims further recite that a number of “surfaces” or “portions” extend “axially” or “radially.” However, the claims do not recite an “axis” or “radius.” Thus, the Court construes the term to provide context for the disclosed geometry to help the fact finder understand the claim language. Moreover, it is not disputed that the terms relate to the axis and radius of the header ring. Indeed, UTEX provides the following figure and states that “it is clear that the [disputed] terms refer to the radius and axis of the header ring.”



Dkt. No. 35 at 8. Similarly, UTEX provides the following figure it submitted during IPR proceedings for the '949 Patent, and argues that the figure “only reinforces that the terms are defined by reference to the header ring itself.”



Id. at 10. Accordingly, the Court construes the disputed term to ensure that it is “defined by reference to the header ring itself.” *Id.* Specifically, the Court construes the term “axially extending” to mean “extending parallel to an axis of the header ring.”

Regarding GD Energy’s revised construction, the Court agrees with UTEX that construing “axially extending” to mean extending “along the axis of the header ring” could require portions of the header ring to actually overlap or extend “along the axis.” This would be inconsistent with every disclosed embodiment, and the understanding of a POSITA. Dkt. No. 42 at 5. Instead, “axially extending” means “extending parallel to an axis of the header ring.”

2. Court’s Construction

The Court construes “**axially extending**” to mean “**extending parallel to an axis of the header ring.**” Dkt. No. 46 at 2.

VI. “a radially inwardly extending first annular surface adjacent the opening, wherein the radially inwardly extending first annular surface has a portion facing in a first direction”

| <u>Disputed Term</u> | <u>UTEX's Proposal</u> | <u>GD Energy's Proposal</u> |
|---|-----------------------------|---|
| "a radially inwardly extending first annular surface adjacent the opening, wherein the radially inwardly extending first annular surface has a portion facing in a first direction" | Plain and ordinary meaning. | "an L-shaped corner formed by a radially inwardly extending first annular surface adjacent the opening, wherein the radially inwardly extending first annular surface has a portion facing in a first direction forming one side of the L-shaped corner and an axially extending radially inwardly facing surface adjacent the opening adjoined with the portion of the first annular surface's portion facing in a first direction forming a second side of the L-shaped corner" |

A. Analysis

The phrase appears in Asserted Claim 3 of the '949 Patent. GD Energy argues that UTEX should be held to express statements made in its Patent Owner Preliminary Response ("POPR") that Claim 3 is limited to a header ring geometry with an L-shaped corner. Dkt. No. 26 at 11. GD Energy contends that UTEX argued that the L-shaped corner was required by Claim 3 and contributed to the "unique geometry" that distinguished it from prior art. *Id.* at 11-12 (citing Dkt. No. 26-3 at 8 n.5, 9, 16, 47, 49). According to GD Energy, Claim 3 must have an L-shaped corner, because UTEX's repeated disclaimer is clear. Dkt. No. 26 at 12.

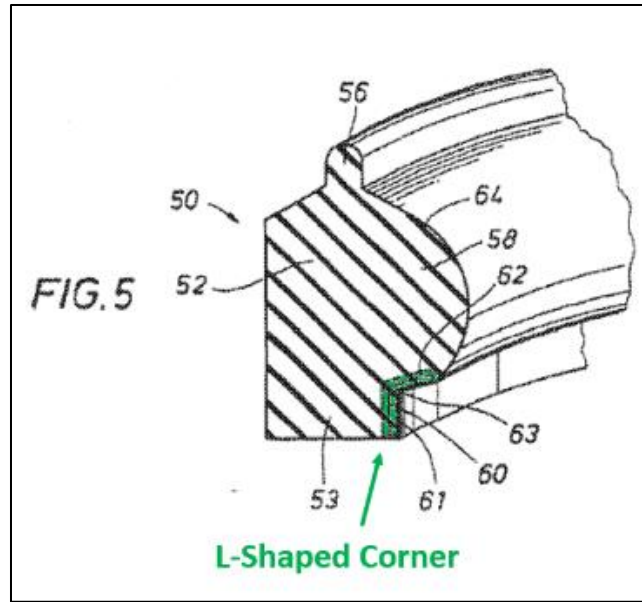
GD Energy also argues that the Court should adopt a construction reflecting this required L-shaped corner to "ensure th[e] claims are not argued one way in order to maintain their patentability and in a different way against accused infringers." Dkt. No. 26 at 12 (citing *Aylus Networks, Inc. v. Apple Inc.*, 856 F.3d 1353, 1360 (Fed. Cir. 2017)). GD Energy further contends that the specification does not disclose any geometries of a header ring without an L-shaped corner. Dkt. No. 26 at 13 (citing '949 Patent at Abstract, 3:34-38, 4:20-26, 2:45-55, 3:22-26, 3:49-53, Figs. 5-9). Finally, GD Energy argues that UTEX's expert from its POPR, Mr. Vinod Sharma,

repeatedly refers to the “L-shaped corner” to distinguish the ’949 Patent from the prior art. Dkt. No. 37 at 8 (citing Dkt. No. 37-1 at ¶¶ 140, 77, 90-93).

The Court recognizes that “[s]tatements made by a patent owner during an IPR proceeding, whether before or after [] institution [], can be considered for claim construction and relied upon to support a finding of prosecution disclaimer.” *Aylus*, 856 F.3d at 1362. However, to qualify as disclaimer, the statement must be a “clear and unmistakable” statement regarding the claim scope. *Id.* at 1359. The Court agrees with UTEX that given the language of Claim 3, there was not a clear and unmistakable disclaimer.

Without question, UTEX distinguished the prior art based on placing “a reinforcing material in portions of the L-shaped corner on the high-pressure end of a header ring.” Dkt. No. 26-3 at 9. UTEX further argued that the prior art, Kalsi, did not disclose the unique geometry of a header ring. *Id.* Thus, the Court looks to the claims to determine the “unique geometry” recited, in the light of the arguments made during the IPR proceeding.

UTEX explicitly identified Claims 1, 3, and 6 as reciting “a fabric reinforced elastomeric material covering portions of the L-shaped corner of the header ring.” Dkt. No. 26-3 at 8 n.5. However, Claim 3 does not include a critical element that is recited in Claims 1 and 6. Specifically, Claim 3 does not include the “radially inwardly facing cylindrical surface adjacent the opening” recited in Claim 1, or the “axially extending second annular portion adjacent the opening” recited in Claim 6. Both of these elements form the second side of an L-shape disclosed in the specification. *See, e.g.*, Fig. 5 (annotated below).



Thus, only *one* side of an L-shape is recited in Claim 3 (*i.e.*, “a radially inwardly extending first annular surface adjacent the opening, wherein the radially inwardly extending first annular surface has a portion facing in a first direction”). Claim 3 further recites that “fabric reinforced elastomeric material” discussed in the IPR covers “at least the surfaces of the header ring facing in the first direction.”

UTEX argued that the prior art only disclosed “placing reinforcing fabric on the rearward surface of the header ring—opposite the exterior surface on the high-pressure end of the packing set.” Dkt. No. 26-3 at 9. Therefore, a POSITA would understand that when the surfaces facing in the first direction is covered by “the fabric reinforced elastomeric material” it is distinguishable from the prior art. In other words, a POSITA would not interpret UTEX as clearly and unmistakably introducing a claim limitation that is not present in the original claim language. Accordingly, the Court finds that UTEX did not make a clear and unmistakable disclaimer in its POPR for the ’949 Patent as it relates to Claim 3. Indeed, there is no evidence that the PTAB relied on any alleged disclaimer, because the parties indicated that the IPR was a discretionary denial.

B. Court's Construction

The phrase “a radially inwardly extending first annular surface adjacent the opening, wherein the radially inwardly extending first annular surface has a portion facing in a first direction” is given its plain and ordinary meaning. Dkt. No. 46 at 2.

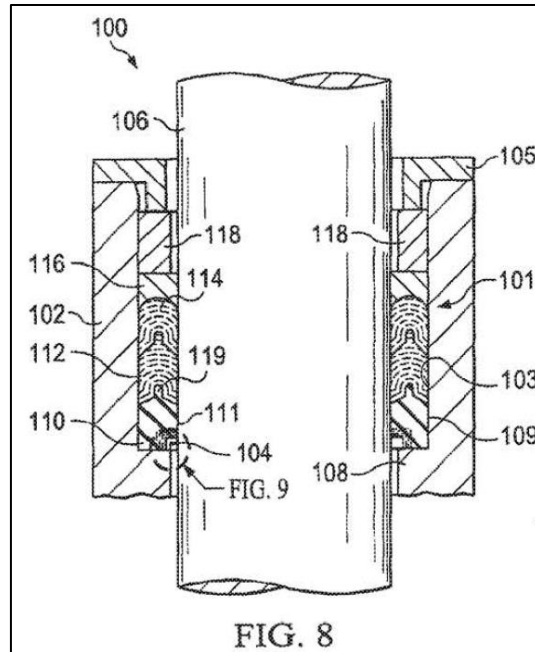
VII. “first direction” / “second direction”

| <u>Disputed Term</u> | <u>UTEX's Proposal</u> | <u>GD Energy's Proposal</u> |
|---|-----------------------------|---|
| “first direction” / “second direction” | Plain and ordinary meaning. | “direction towards the forward end of a packing assembly” / “direction towards the rearward end of the packing assembly” |

A. Analysis

The terms appear in Asserted Claim 3 of the '949 Patent, and Asserted Claim 4 of the '206 Patent. The Court finds that each term is used consistently in the claims and is intended to have the same general meaning in each claim. The parties dispute whether “first direction” and “second direction” refer to specific directions relative to features in a pump.

The specification states that it “is well known in the art, positive displacement reciprocating plunger-type pumps in this environment pose difficult sealing problems at the high pressure end where the abrasive fluid must be prevented from leaking between the reciprocating plunger and the cylinder or housing within which it reciprocates.” '949 Patent at 1:41–46. Similarly, in describing Figure 8 the specification states that “header ring 110 forms a wiper ring at the high pressure end of the sealing assembly 101, its primary function being to prevent abrasives/solids from entering the region where the seal rings 112 and 114 are positioned and thereby prevent excessive wear on seal rings 112 and 114.” *Id.* at 4:7–11.



Id. at Fig. 8. Thus, the intrinsic evidence indicate that there is a high-pressure end of the header ring, and that it is this end that presents “difficult sealing problems.” *Id.* at 1:41–46.

This was further confirmed by UTEX before the PTAB in opposition to a petition for *inter partes* review of the '949 Patent. *Sequoia Tech., LLC v. Dell, Inc.*, 66 F.4th 1317, 1327 (Fed. Cir. 2023) (“statements made by a patent owner during an IPR proceeding . . . can be considered for claim construction”) (citing *Aylus*, 856 F.3d at 1362). UTEX argued that “[t]o solve this problem” of “material loss *at the high-pressure end* of the packing set ... the claims of the '949 Patent all require a reinforced elastomeric material on the exterior surface of the header ring in portions of the L-shaped corner.” Dkt. No. 26-3 at 9 (emphasis added). Likewise, UTEX distinguished the prior art, Hjelsand, by arguing that it only disclosed “reinforcing fabric on the rearward surface of the header ring—opposite the exterior surface *on the high-pressure end* of the packing set” *Id.* (emphasis added). In fact, UTEX repeated this argument multiple times as it related to other identified prior art:

- “Kalsi fails to provide any teaching or suggestion to place a reinforcing material in portions of the L-shaped corner *on the*

high-pressure end of a header ring, as required by the claims of the '949 Patent.” *Id.* at 9 (emphasis added);

- “Neither Kohl, Milligan, nor any of the other references relied upon by Petitioner teach a header ring with reinforcing material in portions of the L-shaped corner *on the high-pressure end of a header ring*, as required by the claims of the '949 Patent. The references do not recognize the problem solved by the '949 Patent—material loss *on the high-pressure side of the header ring* due to the forces of slide wear from the plunger and abrasion from the high-pressure fracking fluid.” *Id.* at 10 (emphasis added);
- “The '949 Patent is directed to solving the specific problem of material loss or ‘nibbling’ related to sliding wear caused by the reciprocating motion of the plunger and erosive wear due *to the high-pressure (e.g., 10,000 psi and greater) abrasive fracking fluid acting on the header ring*, and in particular, nibbling caused by these forces at the L-shaped corner of the inside diameter of the header ring.” *Id.* at 32 (emphasis added);
- “Notably, there is no teaching in Kalsi to place a reinforced elastomeric material to prevent damage *to the high-pressure side of the seal*.” *Id.* at 37 (emphasis added);
- “Importantly, Kohl does not disclose a header ring. Nor does it relate to or address the problems of material loss occurring *on the high-pressure end of a header ring*, or nibbling caused by the wear forces of the plunger or the abrasive forces of a high-pressure fluid, such as that which exists with modern day fracking fluids.” *Id.* at 39 (emphasis added);
- “Neither Hjelsand nor any of the other prior art references relied upon by Petitioner recognize nibbling in the L-shaped corner *of the high-pressure end of the header ring* as a problem.” *Id.* at 53 (emphasis added);
- “In particular, Hjelsand fails to recognize the problem of material loss *at the high-pressure end of the header ring*.” 26-3 at 54 (emphasis added);
- “Hjelsand seeks to solve the problems of extrusion and fluid leakage, rather than material loss occurring *on the high-pressure end of the header ring*.” *Id.* at 65 (emphasis added);
- “Most importantly, Kalsi fails to recognize the problem of material loss occurring on the high-pressure side of the claimed

header rings due to the forces of wear or high-pressure erosion occurring *on that side of the seal.*” *Id.* at 68 (emphasis added);

- “Hjelsand seeks to solve the problems of extrusion and fluid leakage of pressure rings, rather than material loss occurring *on the high-pressure end of the header ring.*” *Id.* at 69 (emphasis added);
- “Kohl also does not disclose the problem of material loss occurring *on the high-pressure end of a header ring*, or that fabric reinforced elastomeric material can be used to resist nibbling caused by the wear forces of the plunger or the abrasive forces of a high-pressure fluid.” *Id.* at 70 (emphasis added);
- “Most importantly, Kohl fails to recognize the problem of material loss occurring *on the high-pressure side of header rings*, specifically material loss due to the forces of wear or high-pressure erosion occurring *on the high-pressure side of a header ring.*” *Id.* at 72 (emphasis added);
- “Neither Hjelsand nor the secondary references upon which the Petitioner relies (which are merely cumulative of other references already considered by the Examiner) recognized the specific problem that the claimed invention solves, *i.e.* material loss *at the high-pressure end of a header ring ...*” *Id.* at 73 (emphasis added).

Claim 3 of the ’949 Patent recites “fabric reinforced elastomeric material covering at least the surfaces of the header ring facing in the first direction.” Similarly, Claim 4 of the ’206 Patent recites “a radially extending fourth annular portion facing in a first direction and extending between the second and third annular portions,” which a POSITA would understand is the high-pressure end of the header ring. Accordingly, the Court construes “first direction” to mean “direction towards the high-pressure end of the header ring.”

Regarding the term “second direction,” the Court gives the term its plain and ordinary meaning, because the claim language defines the relationship between the two directions. Specifically, Claim 3 of the ’949 Patent and Claim 4 of the ’206 Patent recite that the “second direction” is opposite the “first direction.” Accordingly, the claim language explicitly recites

second direction is opposite the high-pressure end of the header ring.

UTEX argues that the Federal Circuit has consistently held that use of the terms “first” and “second” is a “common patent-law convention to distinguish between repeated instances of an element.” Dkt. No. 35 at 15 (citing *3M Innovative Props. Co. v. Avery Dennison Corp.*, 350 F.3d 1365, 1371 (Fed. Cir. 2003)). UTEX contends that to limit “first direction” and “second direction” requires a “clear and unmistakable disclaimer.” *Id.* at 16. UTEX also argues that GD Energy’s constructions are flawed because they also introduce a new limitation in “packing assembly,” which does not appear in any of the asserted claims. *Id.* at 17. For the reasons discussed above, the Court finds that UTEX clearly and unmistakably limited the “first direction” to “direction towards the high-pressure end of the header ring.”

GD Energy argues that the “first direction” and “second direction” correspond to the directions facing the “forward” (high pressure) and “rearward” (lower pressure) ends of the packing assembly, respectively. Dkt. No. 26 at 14. GD Energy contends that the location of the fabric reinforcement is the critical alleged improvement over prior art that was “known to cover certain surfaces of the header ring, particularly the so-called rearward surfaces with a reinforcing fabric.” *Id.* at 14 (citing ’949 Patent at 1:60–62). GD Energy also contends that each embodiment of the alleged invention shows the bead facing in the rearward end of the packing assembly. *Id.* at 15-16.

GD Energy further argues that the patentees confirmed that first and second direction were intended to correspond to the forward and rearward ends, respectively, during prosecution of the ’949 Patent. *Id.* at 16. GD Energy notes that the patentees removed references to the forward facing and rearward facing directions in the claims, but that the examiner rejected the amendment, explicitly noting that the removal of such explanatory language “causes the claims to no longer

define what the forward and rearward directions are.” *Id.* (citing Dkt. No. 26-4 at 12, 23). GD Energy further states that the patentees replaced all references to “forward facing” with “facing in the first direction,” and all instances of “rearward facing” with “facing in a second direction, the second direction being opposite to the first direction.” *Id.* (citing Dkt. No. 26-4 at 32).

GD Energy also argues that its proposal is consistent with UTEX’s statements before the PTAB in opposition to a petition for *inter partes* review of the ’949 Patent. *Id.* (citing Dkt. No. 26-3 at 9, 20). Finally, GD Energy contends that U.S. Patent No. 9,534,691 (“the ’691 Patent”), which is parent to both the ’949 and ’206 Patents, similarly claims a header ring and recites “forward” and “rearward” directions, as opposed to “first” and “second” directions. *Id.* at 17 (citing Dkt. No. 26-6 at Claim 10).

The Court agrees with GD Energy that UTEX limited the term “first direction.” However, the intrinsic evidence indicates that UTEX limited the “first direction” to the “direction towards the high-pressure end of the header ring.” The Court agrees that a POSITA would generally understand that this would be the “forward-facing” end of the header ring, but adopts the language consistently used by UTEX in the IPR, as discussed above. The Court’s construction avoids using the terms “forward facing” and “rearward facing,” which the patentees eventually replaced with the terms “first direction” and “second direction” during prosecution. Likewise, it acknowledges that the patentees knew how to explicitly claim the “forward” and “rearward” directions, as it did in the parent to the to both the ’949 and ’206 Patents. Finally, the Court’s rejects reading a “packing assembly” limitation into the claim, because that term does not appear in any of the asserted claims.

B. Court’s Construction

The Court construes “**first direction**” to mean “**direction towards the high-pressure end of the header ring.**” (46 at 2). The term “**second direction**” is given its **plain and ordinary**

meaning. Dkt. No. 46 at 2.

VIII. “generally radially” / “generally axially”

| <u>Disputed Term</u> | <u>UTEX’s Proposal</u> | <u>GD Energy’s Proposal</u> |
|---|-----------------------------|-----------------------------|
| “generally radially inwardly facing annularly extending” / “generally axially extending radially inwardly facing” | Plain and ordinary meaning. | Indefinite. |

A. Analysis

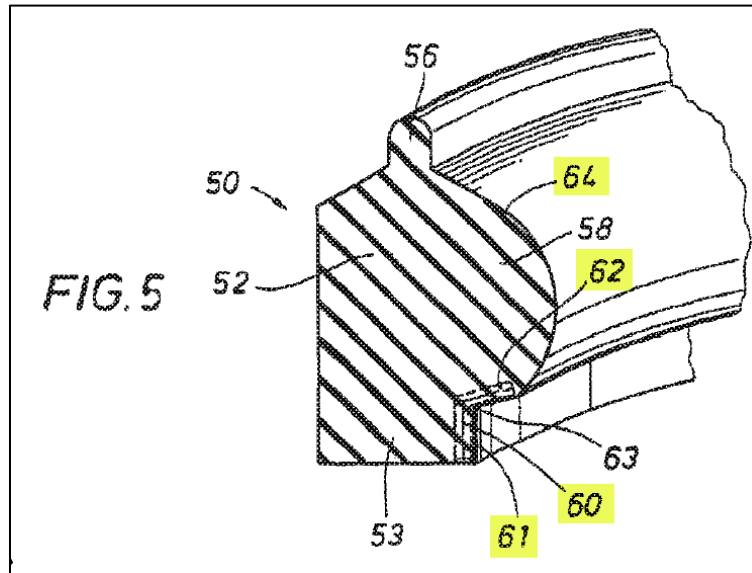
The disputed terms appear in Asserted Claims 1 and 4 of the ’206 Patent. The Court finds that each term is used consistently in the claims and is intended to have the same general meaning in each claim. The parties dispute whether the term “generally radially” and “generally axially” are indefinite, because they include the term of degree “generally.”

As an initial matter, the Court notes that it is important to consider the surrounding claim language. The relevant language of Claim 1 of the ’206 Patent follows:

1. A header ring adapted to be engageable with a reciprocating, cylindrical member and a cylindrical wall of a housing in which the cylindrical member reciprocates, comprising:
an opening;
[1] *a generally radially inwardly facing annularly extending sealing surface* adjacent the opening and adapted to be engageable with a reciprocating, cylindrical member;
[2] *a generally axially extending radially inwardly facing surface* adjacent the opening;
...
wherein at least a section of *the radially inwardly facing annularly extending sealing surface* and at least a section of *the generally axially extending radially inwardly facing surface* comprise [3] *a layer of woven fabric* ...

As shown in Figure 5, claimed sealing surface [1] is identified as surface 64, and claimed surface [2] is identified as surface 61. The sections of these surfaces with the layer woven fabric [3] is

identified as sections 60 and 62. '206 Patent at 3:42–46.



206 Patent at Figure 5 (highlight added). In other words, the claim language recites how surfaces or portions extend, and provides more than an abstract debate on how “radially” differs from “generally radially,” or how “generally axially” differs from “axially.”

GD Energy correctly argues that Asserted Claims 1 and 4 of the '206 Patent recite both “generally radially ... extending” and “radially extending,” as well as “generally axially extending” and “axially extending” in the same claim. GD Energy contends that radially and axially define directions that are perpendicular to one another. Dkt. No. 26 at 18. According to GD Energy, the Asserted Patents fail to give any way to delineate between “generally radially” and “generally axially,” or the difference between “generally axially” versus “axially” or “generally radially” versus “radially.” *Id.*

GD Energy further contends that the intrinsic record is devoid of objective boundaries for “generally,” because “axially” cannot mean “radially,” but “generally axially” could apparently mean kind of “radially,” and “generally radially” could mean kind of “axially.” Dkt. No. 26 at 18-19 (citing *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1363–64 (Fed. Cir. 2018)). GD Energy also

argues that axially and radially have distinct meanings, and the term “generally” blurs the boundaries between the terms. *Id.* at 19.

UTEX responds that GD Energy effectively seeks to establish a bright-line rule that words of degree like “generally” must always be indefinite. Dkt. No. 35 at 18. UTEX argues that the words “radially” and “axially” are geometric terms with well understood meanings, such that “generally radially” means something that is, for the most part, radial, and “generally axially” means something that is, for the most part, axial, which allows for some amount of deviation from strictly radial or axial. *Id.* UTEX contends that the “generally” terms should be given their plain and ordinary meaning because they are not indefinite, and can coexist with the well-defined geometric terms “radially” and “axially” in the ’206 Patent. *Id.* at 22.

The Court first notes that the Federal Circuit has repeatedly “rejected the proposition that claims involving terms of degree are inherently indefinite.” *Sonix Tech. Co. v. Publications Int’l, Ltd.*, 844 F.3d 1370, 1377 (Fed. Cir. 2017). “[A] patentee need not define his invention with mathematical precision in order to comply with the definiteness requirement.” *Id.* (citing *Invitrogen Corp. v. Biocrest Mfg., L.P.*, 424 F.3d 1374, 1384 (Fed. Cir. 2005)). In other words, the standard for indefiniteness remains an inquiry as to whether a “patent’s claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty[,] ... while recognizing that absolute precision is unattainable.” *Nautilus*, 572 U.S. at 910.

Courts have found that terms using the word “generally” are not indefinite when used with geometric limitations, as in the present case. Indeed, in *Anchor Wall Systems, Inc. v. Rockwood Retaining Walls, Inc.*, the Federal Circuit recognized that “words of approximation, such as ‘generally’ and ‘substantially,’ are descriptive terms ‘commonly used in patent claims ‘to avoid a

strict numerical boundary to the specified parameter.’” 340 F.3d 1298, 1310–11 (Fed. Cir. 2003). There, the Federal Circuit construed the term “generally parallel” to “envision[] some amount of deviation from exactly parallel,” in view of a Webster’s dictionary definition of “generally.” Similarly, in *North American Container, Inc. v. Plastipak Packaging, Inc.*, the Federal Circuit construed “generally convex” to “require[e] a majority of points to be convex,” based on “a common-sense understanding of the term confirmed by a dictionary.” 415 F.3d 1335, 1346 (Fed. Cir. 2005).

The Court finds that the intrinsic evidence provides sufficient context to inform a POSITA with reasonable certainty about the scope of the claim. As discussed above, the disputed terms are not used in isolation, but rather as part of phrases that describe the shape of the claimed header ring. For example, Claim 1 of the ’206 Patent recites “a generally radially inwardly facing annularly extending sealing surface adjacent the opening and adapted to be engageable with a reciprocating, cylindrical member” and “a generally axially extending radially inwardly facing surface adjacent the opening.” The surrounding claim language, along with the teachings of the specification including figures of preferred embodiments, would assist a POSITA in understanding the scope of the claims. In other words, a POSITA would understand the plain and ordinary meaning of “generally radially” means something that for the most part extends towards or away from a center of the header ring, and “generally axially” to mean something that for the most part, extends parallel to an axis of the header ring. Dkt. No. 35-1 ¶ 84, 88.

GD Energy contends that a POSITA is left without reasonable certainty regarding the scope of the geometric limitation “generally radially” and how it differs from the “radial” and “generally axially” limitations, because the claims contain both modified and unmodified terms within the same claim. For example, Claim 1 recites both “generally axially extending” as well as “axially

extending.” Dkt. No. 37 at 11 (citing *Acorn Semi, LLC v. Samsung Elecs. Co.*, Civil Action No. 2:19-cv-00347-JRG, 2020 U.S. Dist. LEXIS 193685, at *46-56 (E.D. Tex. Oct. 16, 2020)). In *Acorn*, the court determined that “generally dependent” was indefinite because the word “dependent” itself has varying levels of degree. *Id.* Likewise, in *Jaguar Land Rover Ltd. v. Bentley Motors Ltd.*, the term “relatively high degree of wheel slip under braking” suffered from the fact that “high degree of wheel slip” encompassed potentially a wide range. No. 2:18cv320, 2020 U.S. Dist. LEXIS 192297, at *14-19 (E.D. Va. Oct. 14, 2020). In summary, the cases cited by GD Energy do not stand for a bright line rule that the presence of both modified and unmodified terms within the same claim warrants a finding of indefiniteness for the “generally” terms. Here, the claim language recites both “generally radially ... extending” and “radially extending,” as well as “generally axially extending” and “axially extending” in the same claim, but applies these descriptors to different limitations. This is similar to *Edgewell Personal Care Brands, LLC v. Albaad Massuot Yitzhak, Ltd.*, where the terms “generally tapered” and “tapered” were recited in the same claim, but applied to different limitations. Civil Action No. 15-1188-RGA, 2017 U.S. Dist. LEXIS 70242, at *3-8 (D. Del. May 9, 2017).

Accordingly, the Court finds that GD Energy failed to show by clear and convincing evidence that the claim language is indefinite. The intrinsic evidence indicates that a POSITA would be able to determine the scope of the claim with reasonable certainty. *Verve v. Crane Cams*, 311 F.3d 1116, 1120 (Fed. Cir. 2002) (“It may of course occur that persons experienced in a technologic field will have divergent opinions as to the meaning of a term, particularly as narrow distinctions are drawn by the parties or warranted by the technology. ... But the fact that the parties disagree about claim scope does not of itself render the claim invalid.”).

B. Court's Construction

The terms “**generally radially**” and “**generally axially**” are given their **plain and ordinary meaning**. Dkt. No. 46 at 2.

IX. The '206 Patent L-Shaped Terms

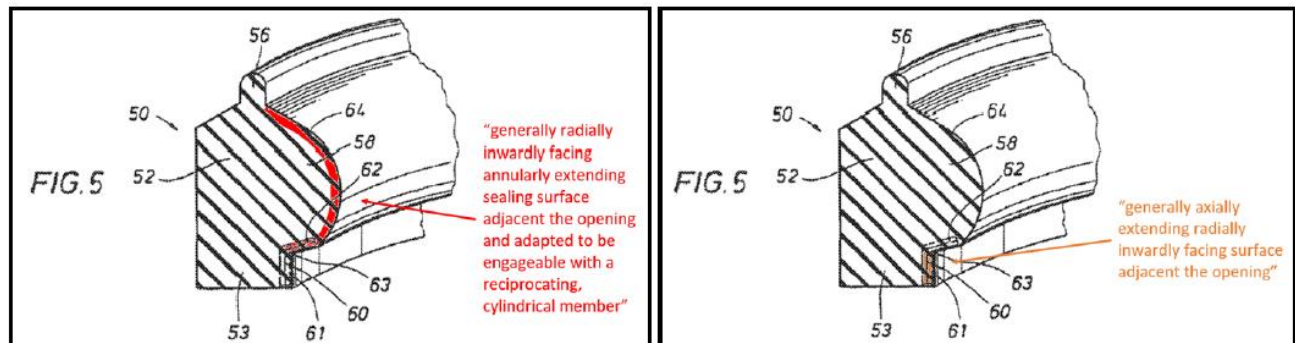
| <u>Disputed Term</u> | <u>UTEX's Proposal</u> | <u>GD Energy's Proposal</u> |
|---|-----------------------------|---|
| “a generally radially inwardly facing annularly extending sealing surface adjacent the opening and adapted to be engageable with a reciprocating, cylindrical member” | Plain and ordinary meaning. | “a generally radially inwardly facing annularly extending sealing surface adjacent the opening and adapted to be in contact with a reciprocating, cylindrical member, at least a portion of which forms one side of an L-shaped corner” |
| “a generally axially extending radially inwardly facing surface adjacent the opening” | Plain and ordinary meaning. | “a generally axially extending radially inwardly facing surface adjacent the opening adjoined with the generally radially inwardly facing annularly extending sealing surface to form the other side of the L-shaped corner” |
| “a generally radially inwardly extending first annular portion adjacent the opening and adapted to be engageable with a reciprocating, cylindrical member” | Plain and ordinary meaning. | “a generally radially inwardly extending first annular portion adjacent the opening and adapted to be in contact with a reciprocating, cylindrical member, at least a portion of which forms one side of an L-shaped corner” |
| “a generally axially extending second annular portion adjacent the opening” | Plain and ordinary meaning. | “a generally axially extending second annular portion adjacent the opening adjoined with the first annular portion to form the other side of the L-shaped corner” |

A. Analysis

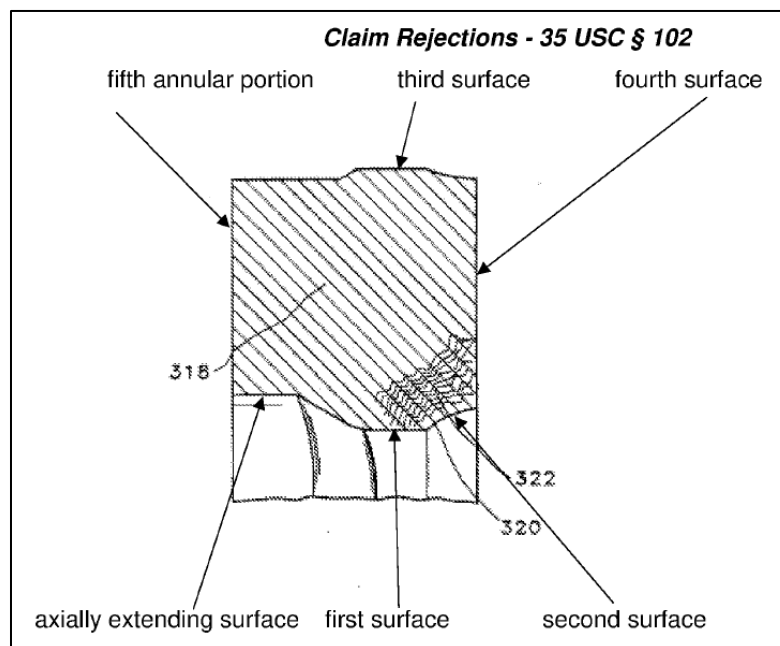
The disputed phrases appear in Asserted Claims 1 and 4 of the '206 Patent. The Court finds that each phrase is used consistently in the claims and is intended to have the same general meaning in each claim. The parties dispute two issues. The first issue is whether the intrinsic evidence requires a geometry that includes an L-shaped corner. The second issue is whether “to be

engageable” should be redrafted as “to be in contact.”

The claim elements at issue are illustrated in annotated Figure 5 as follows:



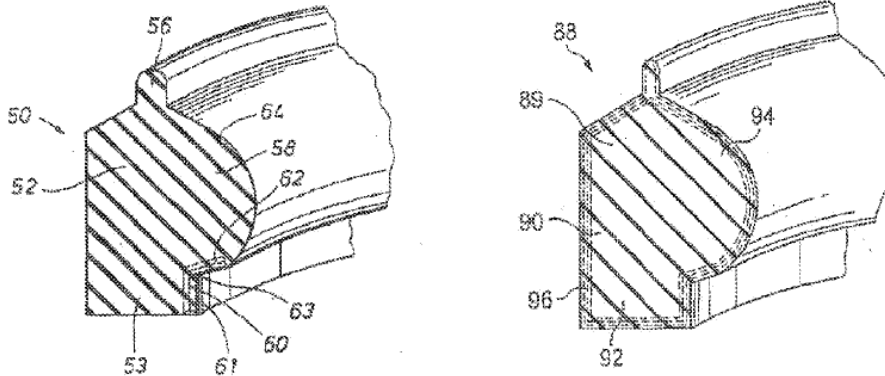
During prosecution of the '206 Patent, the patentees made clear that the claimed geometry included an L-shaped corner. The examiner rejected pending Claims 1 and 7 of the application, which became Claims 1 and 4 of the '206 Patent, in view of U.S. Patent No. 5,738,358 to Kalsi ("Kalsi '358"). Dkt. No. 26-5 at 23-29. Kalsi '358's geometry and the examiner's claim mapping is illustrated below:



Id. at 24. To overcome the rejection, the patentees distinguished Kalsi '358 contending that “contrary to the claimed header ring, Kalsi '358 does not disclose forming the L-shaped corner

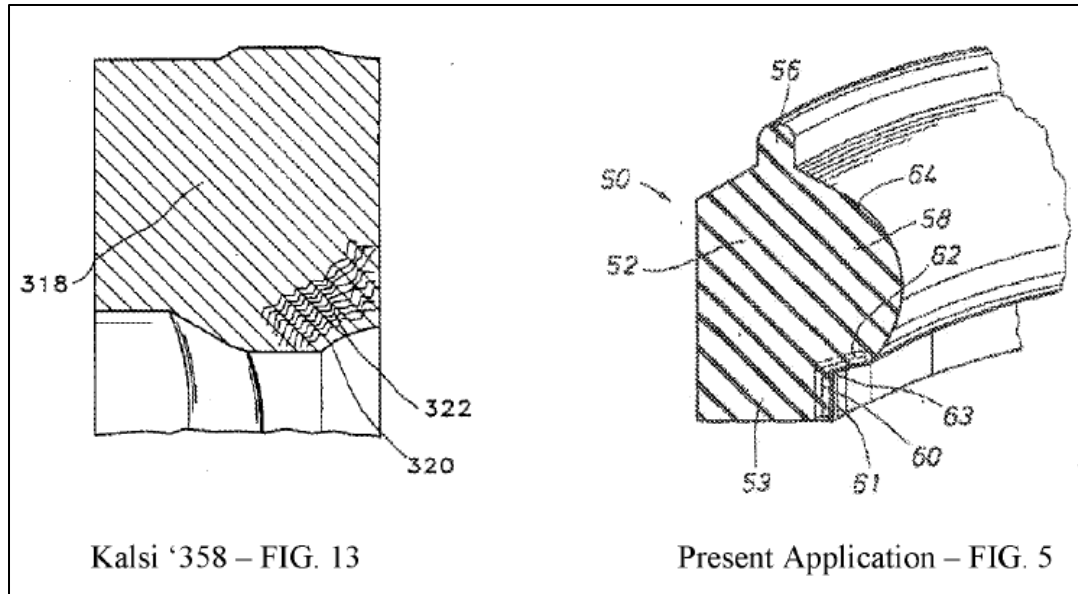
with layers of fabric as depicted in FIGS. 5 and 7 of the present application,” as shown below:

Kalsi '358 does not recognize this specific problem experienced by header rings having the geometric shape of the claimed header ring. Consequently, and contrary to the claimed header ring, Kalsi '358 does not disclose forming the L-shaped corner with layers of fabric as depicted in FIGS. 5 and 7 of the present application, which are reproduced below.



The geometry of the rotary seal disclosed by Kalsi '358 is shown in representative FIG. 13 which is reproduced below side by side with the header ring of FIG. 5 of the present application for comparison purposes:

Id. at 5. The patentees further argued that “Kalsi '358 clearly does not disclose or suggest the geometry of the claimed header ring,” which it highlighted with a side-by-side of the images below:



Id. at 41. Thus, the Court agrees that GD Energy’s construction correctly requires an L-shaped corner in view of the intrinsic evidence.

Turning to the second issue, the parties dispute whether the claim term “adapted to be engageable” should be redrafted as “adapted to be in contact.” GD Energy contends that the purpose of the alleged invention is to provide a header ring which functions as a sealing device and mitigates the problem of nibbling. Dkt. No. 26 at 24 (citing Dkt No. 26-2 at 1:30–2:42, 5:8–18). According to GD Energy, if the header ring was not in contact with the reciprocating cylindrical member, then it would not act as a seal. *Id.* GD Energy further argues that the patentees distinguished the pending claims that issued as the ’206 Patent over prior art by repeatedly emphasizing that prior art did not provide the solutions of the “abrasion-resistant surface” of the ’206 Patent. *Id.* (citing Dkt. No. 26-5 at 64, 46-50, 19). GD Energy contends that the portion of the header ring that mitigates nibbling requires contact with the cylindrical member. *Id.*

UTEX responds that if the patentees intended “engageable” to mean “in contact,” they would have stated so explicitly. Dkt. No. 35 at 24. UTEX argues that “engageable” suggests a potential interaction, meaning the components are capable of engaging when necessary, rather

than being in continuous contact. *Id.* UTEX contends that the specification indicates that the layer of woven fabric lies beneath the surface of the header ring in some embodiments, rather than being in direct contact with any external component. *Id.* at 25 (citing Dkt. No. 35-1 at ¶¶ 69, 78; '206 Patent Figs. 5–7, 9). UTEX argues that construing “engageable” to mean “in contact” would improperly suggest to a jury that direct contact is required in all instances, contradicting the specification and claim language. *Id.*

The Court finds that GD Energy failed to provide a persuasive reason to redraft “engageable” to mean “in contact.” *K-2 Corp. v. Salomon SA*, 191 F.3d 1356, 1364 (Fed. Cir. 1999) (“Courts do not rewrite claims; instead, we give effect to the terms chosen by the patentee.”). Contrary to GD Energy’s contention, the intrinsic evidence does not require the header ring to be a “sealing device.” Indeed, the specification explicitly states that primary function of the header ring is “to prevent abrasives/solids from entering the region where the seal rings 112 and 114 are positioned and thereby prevent excessive wear on seal rings 112 and 114.” '206 Patent at 4:17–19; *see also* Dkt. No. 26-3 at 25 (“a header ring is not required to seal against fluid, but instead functions to energize the pressure rings and wipe the plunger to prevent ingress of abrasive material into the pressure sealing area of the packing assembly during each plunger stroke.”). Accordingly, the Court rejects this portion of GD Energy’s construction.

B. Court’s Construction

The Court construes the disputed phrases as follows:

- **“a generally radially inwardly facing annularly extending sealing surface adjacent the opening and adapted to be engageable with a reciprocating, cylindrical member” means “a generally radially inwardly facing annularly extending sealing surface adjacent the opening and adapted to be engageable with a reciprocating, cylindrical member, at least a portion of which forms one side of an L-shaped corner.”**

- “a generally axially extending radially inwardly facing surface adjacent the opening” means “a generally axially extending radially inwardly facing surface adjacent the opening adjoined with the generally radially inwardly facing annularly extending sealing surface to form the other side of the L-shaped corner.”
- “a generally radially inwardly extending first annular portion adjacent the opening and adapted to be engageable with a reciprocating, cylindrical member” means “a generally radially inwardly extending first annular portion adjacent the opening and adapted to be engageable with a reciprocating, cylindrical member, at least a portion of which forms one side of an L- shaped corner.”
- “a generally axially extending second annular portion adjacent the opening” means “a generally axially extending second annular portion adjacent the opening adjoined with the first annular portion to form the other side of the L-shaped corner”

Dkt. No. 46 at 2-3.

X. CONCLUSION

The Court adopts the constructions listed in the Claim Construction Order (Dkt. No. 46) for the reason set forth in this memorandum. Furthermore, the Parties should ensure that all testimony that relates to the terms addressed in this memorandum is constrained by the Court’s reasoning. However, in the presence of the jury the Parties should not expressly or implicitly refer to each other’s claim construction positions and should not expressly refer to any portion of this memorandum that is not an actual construction adopted by the Court. The references to the claim construction process should be limited to informing the jury of the constructions adopted by the Court.

SIGNED this 24th day of June, 2025.



DEREK T. GILLILAND
UNITED STATES MAGISTRATE JUDGE